

# NewsRelease

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## **ENGINEERS TEST REPRODUCTION IN TUNNEL VISITED BY ORVILLE WRIGHT**

It triggers the imagination ... what would aviation pioneer Orville Wright think about a reproduction of his 1903 Wright Flyer being tested in a wind tunnel Wright, himself, used to visit?

An authentic airworthy reproduction of the Wright brothers' successful powered flying machine is undergoing aerodynamic testing at the Langley Full Scale Tunnel, owned by NASA's Langley Research Center in Hampton, Va., and operated by Old Dominion University (ODU) in Norfolk, Va. The Langley Full Scale Tunnel was built in 1930 and was NASA's first full-scale wind tunnel.

During this experiment, which is being underwritten primarily by Old Dominion University with significant support from the Aerospace Vehicle Systems Technology Office at Langley Research Center, engineers will take the necessary measurements to determine how the 1903 Wright Flyer replica can be flown and controlled. They'll use the information, not only to document the 40.5-foot wingspan aircraft's flying characteristics, but also to create the first accurate flight simulator to teach pilots how to fly the primitive aircraft.

"NASA Langley is proud to sponsor wind tunnel tests of this accurate, authentic reproduction of the Wright Flyer. The first man to fly, Orville Wright, was on the advisory committee that established NASA's Langley Research Center in 1917," said Ed Prior, deputy director of NASA Langley's Office of Education. "Wright also visited Langley a number of times. In fact, we have at least one picture of Orville Wright taken in the very same tunnel where the Wright Flyer reproduction is being tested."

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The wind tunnel tests are part of research being done by ODU and Ken Hyde of the Wright Experience of Warrenton, Va. The Wright Experience has been contracted by the not-for-profit Discovery of Flight Foundation, also in Warrenton, to uncover and document how the Wright brothers, neither of whom finished high school, managed to conquer the principles of controlled, powered flight in five short years.

During the tests the Wright Flyer, which was built with help from the Ford Motor Co. and the Experimental Aircraft Association in Oshkosh, Wis., will use two different motors. One is a gasoline-powered reproduction of the primitive engine designed and built by the Wright brothers in 1903. The other is an electric motor donated by Teco Westinghouse Corporation, which can be controlled precisely during wind tunnel testing.

"Rediscovering the secrets of the Wright brothers to inspire a new generation is what motivates The Wright Experience," said Hyde. "Our journey will continue through December 17<sup>th</sup> this year with the flight of this 1903 Wright flyer reproduction at Kitty Hawk. These wind tunnel tests will help us recreate the Wrights' historic accomplishment and help us reduce the risk involved in the flight."

"We can't predict what the weather will be on December 17<sup>th</sup> 2003, when the Wright Experience plans to fly the EAA Flyer reproduction," said Professor Robert Ash, Wright test program manager for ODU. "We only know that the original Flyer could be flown on a cold day into a 27 mph wind. The wind tunnel test results will give us the necessary knowledge to guide and train pilots for virtually all eventualities."

The Wright Experience and ODU have already built and tested 1901 and 1902 Wright glider reproductions along with a suite of Wright propellers in their quest to "reverse engineer" the 1903 Wright Flyer and other early Wright aircraft.

For more information on the Wright Experience please check the Internet at:

**<http://www.wrightexperience.com>**

For more information on the Langley Full Scale Tunnel please check the Internet at:

**<http://www.lfst.com>**

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<p><b>Reporters are invited to observe the wind tunnel tests of the 1903 Wright Flyer reproduction and interview Ken Hyde and other researchers Friday, February 28. Crews should arrive at the Langley Air Force Base LaSalle gate by 10 a.m. so they can be escorted to the Langley Full Scale Tunnel.</b></p>
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